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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/593,268  | 10/06/2006  | Makoto Yoshida       | SH-0067PCTUS        | 6453             |
| 21254 7590 07/29/2010<br>MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC<br>8321 OLD COURTHOUSE ROAD<br>SUITE 200<br>VIENNA, VA 22182-3817 |             |                      |                     |                  |
| EXAMINER  |             |                      |                     |                  |
| HOFFMANN, JOHN M  |             |                      |                     |                  |
| ART UNIT  |             | PAPER NUMBER         |                     |                  |
| 1791  |             |                      |                     |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/593,268

**Applicant(s)**

YOSHIDA ET AL.

**Examiner**

John Hoffmann

**Art Unit**

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-13 and 15-21 is/are pending in the application.
- 4a) Of the above claim(s) 2 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-13 and 15-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/23/2010 has been entered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 3-13 and 15-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

There is no support for the claim limitations related to the material being "large-diameter" or "large mass".

Claims 12-13. It appears that the values of 0.1 and 0.05 were random points picked from workable ranges. There is nothing which reasonably suggests applicants

considered these values to be part of the invention at the time of the invention. Based on tables 1-2 it appears applicant only has support for values such as 0.0052 and 0.0009 for the core displacement ratio, and values 0.0050, 0.0031, etc. for the deformation ratio.

There is no support for the claim 15 limitation that the insulation surrounds an upper portion of the furnace core tube. Examiner assumes that this "upper portion" limitation was derived from the drawings. However the drawings are clearly not to scale. One would realize that the furnace tube figure 1 has a much-shortened length, given that the length of the preform could not fit into the upper section above the furnace.

### Claim 3

Claim 3: the claimed limitation for the entirety being preheated "before vitrification of an outer portion of said rod-shaped porous glass based material begins in said heating section" was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Applicant points to [0014] -[0015] as providing support for this new language. Examiner understands that these paragraphs clearly state that "every part...is moved through a preheated region...in 4.5 hours or longer. After this, the porous glass base material is vitrified...." Examiner understands how [0014] and [0015] (when read in a

vacuum) could lead one of ordinary skill to infer that the entirety is preheated before vitrification begins. However, the paragraphs should not be read in a vacuum.

First of ordinary skill would immediately see that the specification has various typographical errors. For example [0026] refers to a rate of 1.65 mm/min for Table 2, but table 2 uses a value of 1.68 mm/min. Likewise the 1.38 mm/min value for Table 1, is reported as 1.08 mm/min in the specification. Thus given these clear errors, one of ordinary skill would believe that other errors are possible in the specification.

When reading [0014 and [0015] in context of the entire application, Examiner finds an incongruity between new claim 3 and the rest of the specification. As can be easily seen in figures 2-3 (and as discussed in the specification) a transit time of 4.5 hours or more shows an improvement in deformation and in core displacement. [0015] clearly explains the basis for the improvement: when slowly preheated, there is only a small difference in temperature in the radial direction.

What is this transit time? Page 6, lines 2-3 identifies how it was calculated. It is clear from the specification as a whole that it is the time it takes the preform to pass/transit through the preheated region. When does this transit time occur? There are at least three possibilities: 1) It could transit through the preheated region while the preform is being preheated, and with no part of preform is being simultaneously sintered. 2) It could transit through the preheated region while it the preform is being preheated and the preform is being simultaneously sintered. 3) It could be the transit time of a completely preheated preform during sintering - e.g. the preform could pass

through the furnace a first time to preheat it, then this preheated preform is passed through the furnace a second time to sinter the preheated preform, During this second pass through is when the transit time is determined.

Of these three possibilities, claim 3 is directed to the first; [0014] and [10015] are also suggestive of the first. However the specific examples points to the second or third (as explained below).

Given that the specific examples contradict the discussion in the specification and the present claim, the presumption is that the invention as set forth examples is the actual invention.

A claim interpretation that puts the preferred embodiment outside the claim is "rarely, if ever, correct and would require a highly persuasive evidentiary support", Vitronics, at 1583.

At [0022] the specification states that "The fiber porous glass base materials...were lowered during the sintering process at different rates of 1.68...." Figures 2-5 shows these rates. This describes the lowering "during the sintering process" NOT a lowering that occurs "before vitrification" (i.e before sintering) as is claimed. Since the examples pertain to what happens "**during**" sintering and the claims are directed to what happens **before** sintering, the disclosed embodiments are outside the scope of the claim.

To put it another way: The invention relates to preheating the preform to homogenize the temperature so that there is no radial temperature gradient when the

preform is sintered/vitrified. It this preheating is performed prior to the start of the sintering, why are all the implementation examples concerned only with the transit during the sintering and completely silent to the transit time during a preheating step?

Examiner's conclusion is that one would interpret the invention as shown in figure 1 and described from [0020] to [0023] , which describes sintering a preform while the transit time thorough the "region extending from the upper edge of the insulating member to the upper edge of the heater in the heating furnace" during the sintering process.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what the standards for "large-diameter" and "large-mass" are. There is no discussion of such in the specification as filed, thus one would not be able to determine what is meant by these terms.

***Response to Arguments***

Applicant's arguments filed 6/23/2010 have been fully considered but they are not persuasive.

IT is argued that one of ordinary skill would find that the specification provides support for the "large-mass" and "large-diameter".

**From MPEP 2145 Consideration of Applicant's Rebuttal Arguments**  
**I. ARGUMENT DOES NOT REPLACE EVIDENCE WHERE EVIDENCE IS NECESSARY**

Attorney argument is not evidence unless it is an admission, in which case, an examiner may use the admission in making a rejection. See MPEP § 2129 and § 2144.03 for a discussion of admissions as prior art.

The arguments of counsel cannot take the place of evidence in the record. In re Schulze, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965); In re Geisler, 116 F.3d 1465, 43 USPQ2d 1362 (Fed. Cir. 1997) ("An assertion of what seems to follow from common experience is just attorney argument and not the kind of factual evidence that is required to rebut a prima facie case of obviousness."). See MPEP § 716.01(c) for examples of attorney statements which are not evidence and which must be supported by an appropriate affidavit or declaration.

However this is only a conclusion. There is no attempt to show where in the specification there is support. The sizes reported 400-600 mm appear to be rather small to examiner. And the diameter of 250 mm appears to be average.

It is argued that support for claim 15 can be found at paragraph [0017]. It appears applicant is relying upon the passage which states "the insulating member maybe configured to cover the entire upper portion of the heating furnace body". This does not support the claim language which refers to the "furnace core tube". The "heating furnace body" and "furnace core tube" are two distinct parts. The fact that the body was covered does not suggest the upper portion of the core tube was surrounded.



Figure 1 clearly shows the furnace body being covered without the upper portion of the core tube being surrounded.

It is also argued that Large-diameter and "large mass" would have been clearly understood. There is no evidence or rationale to support this assertion. Preform sizes increase over time. What was considered large in the 80's is likely to be considered average now. It is also unclear whether a 'large' preform in Japan is different from what is considered large in the USA.

### ***Conclusion***

Although there is no prior art rejection, it should not be assumed that Examiner is indicating allowable subject matter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Thursday, roughly 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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